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Original Articles.

MEMBRANOUS CROUP, WITH REPORT OF CASES SUCCESSFULLY TREATED BY TRACHEOTOMY.

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MEMBRANOUS croup is comparatively a rare disease, but almost every physician at some time or other has seen its destructive effects, and it is probably the most appalling scene he is ever called upon to witness; that of a child dying from suffocation.

Membranous croup, or pseudo-membranous croup, or true croup, may be defined as an inflammation of the mucous membrane of the larynx, or larynx and trachea, characterized by a fibrinous exudation, or a formation of pseudo-membrane.

A pseudo-membrane is an inflammatory exudate formed and coagulated upon the surface of inflamed mucous membrane with which it is not blended.

Laryngitis with a fibrinous exudation is a peculiar, separate and distinct inflammation of mucous membrane and is always such from the beginning.

Etiology.—True croup is a disease most always occurring in children from two to ten years of age and is exceptionally seen in infancy. Boys are said to be more often affected than girls. It may complicate diphtheria and scarlatina.

There seems to be some confusion as to the relationship that true croup sustains to diphtheria during an epidemic of the latter; the prevailing opinion seems to be that the existence of membranous croup furnishes circumstances favorable to the inoculation by the micrococci of diphtheria, thus producing the general disease; but in localities where diphtheria is unknown, it can readily be excluded.

The common causes are, "taking cold," inhaling particles of dust, smoke, etc., exposure to dampness and cold etc.

Pathological Anatomy.—The exudation is usually confined to the larynx and trachea, but may exist in the pharynx, on the tonsils, soft palate and epiglottis, and may extend to the larger bronchi. The false membranes are whitish, or grayish, or brownish red color, and vary in

extent consistence and thickness. The favorite seat of exudation is the vocal chords, where it nearly occludes the passage of air.

The false membrane consists chiefly of fibrillated fibrin holding in its meshes pus cells, red blood corpuscles and epithelial cells. During the course of the disease the membrane may be exfoliated and new ones reproduced.

Rod-shaped and spherical bacteria are observed.

Symptoms.—The local and general symptoms of true croup are, at first, not well marked and are the same as those of simple laryngitis. There is hoarseness or huskiness of the voice with more or less fever. The obstructive symptoms do not come on until after a few days, as a rule, and dyspnea when developed is constant and is more or less paroxysmal in character, according to the amount of spasm present, with morning remissions and evening exacerbations. Cough is stridulous and ineffective and inspiratory efforts are very labored. Shreds of membranes may be expectorated and obstruction decrease and patient recover, but this fortunate termination is rare.

If obstruction be not relieved, symptoms of asphyxia set in more or less rapidly; breathing becomes easier towards the close of life, stupor supervenes and the face becomes dusky and cyanotic.

An element in the causation of obstruction may be due to paralysis of the posterior crico-arytenoid muscles. Mucopus may accumulate in the trachea when expectoration ceases. Convulsions may occur towards the close.

Diagnosis.—The diagnosis is of greatest importance with reference to prognosis and treatment. The diagnostic signs are insidious development; alteration of the voice; the presence of a fibrinous exudation about the pharynx and epiglottis, however, its absence does not exclude its presence in the larynx; more or less fever; and laryngoscopic examination. These symptoms taken collectively render the diagnosis usually easy.

In false croup, on the other hand, we have rapid development, usually occurring at night; and more violent symptoms.

When we see evident signs of rapid failure and constantly increasing obstruction, we may know that we have to deal with something more than a case of false croup.

True croup should be diagnosticated from acute laryngitis, œdema of the glottis, diphtheritic sore throat, recto-pharyngeal abscess, tonsillitis, whooping cough, foreign bodies in trachea, etc.

Prognosis.—The prognosis is grave. Out of twenty-two cases analysed by Ware, nineteen died. Cases left to medical treatment almost invariably die. Most all statistics give a mortality from seventy-five to ninety-five per cent.

Treatment.—Many remedies have been vaunted for the cure of true croup, and there are some older physicians who claim to never lose a case of membranous croup with medicinal treatment, but, I rather doubt their diagnosis. The list of remedies used is, indeed, long and I will not discuss any, but merely mention them. Ice is used internally; and the cold compress externally; calomel in large and small doses: tartar emetic; the the alkalies, as carbonate of potassium and sodium, liquor potassa and lime-water by inhalation; quinine in large doses; atomized liquids, as solutions of lactic acid, trypsin and pepsin, to dissolve the membrane; antiseptic sprays of boric acid, carbolic acid, and bichloride of mercury; and turpentine inhalation; pilocarpin, grain $\frac{1}{60}$ every four to six hours has been used, but is too depressand; turpeth mineral, two to five grains; inhalation of oxygen; and stimulants when necessary.

When all of our therapeutic resources are exhausted, we come to consider

Surgical Treatment.—Intubation, as advocated by Dr. O'Dwyer, of the New York Foundling Asylum, offers relief in selected cases, but is, by far, inferior to tracheotomy. It is most applicable to cases where the obstruction is confined to the larynx. I have had no experience with it.

Tracheotomy.—Tracheotomy offers more relief than any remedy at our disposal, and, I am sure, any one who has ever done the operation would feel justified in doing it again even though the patient die. To see a little patient, who has been suffering days and nights without sleep, with labored breathing increasing all the while, get sudden relief as soon as the tube is introduced and sink into

a restful sleep, for ten to twelve hours, is something very much to be desired.

It is true that tracheotomy is a difficult and dangerous operation to perform, but it is done as a last resort, and no cases are too hopeless for its performance. If the patient dies it promotes an easy death. Prof. Billroth regards it one of the most difficult and dangerous operations the surgeon is ever called upon to perform. The best statistics give a mortality of about seventy-five per cent., but in these diphtheria exists as a complication and adds to the danger of the operation.

Tracheotomy admits air into the lungs and furnishes a means of expectoration. It keeps the patient alive until the fibrinous exudation resolves into a more liquid, muco-purulent mass, which is finally expectorated through the tube. I think that when tracheotomy is done where there is no infectious disease, and is done when the patient is not too far gone, it should be considered a more hopeful surgical procedure. Dr. J. Lewis Smith says, that "when it is properly performed, and at the proper time, with judicious after treatment it rescues many children from a most painful death." Most authorities advocate that tracheotomy should be done when the diagnosis of membranous croup becomes positive.

The instruments necessary are not numerous. Of course, it is more convenient to have a tracheotomy case, but, it is essentially necessary only to have a tube in addition to your general operating instruments. The tube that seems to answer best is that originally devised by Trousseau, consisting of two concentric silver tubes, the outer one being fenestrated. Having tubes double is a matter of convenience in cleaning. We next need two sizes of scalpels, as found in general operating cases. As a substitute for two blunt hooks, made for the purpose, we can use a tenaculum and aneurism needle, for holding the edges of the wound apart. A number of artery clamps are necessary. A uterine tenaculum, which every physician has, may be used for fixing the larynx during the operation. We need, also, grooved directors and ordinary pigeon quills for removing expectoration through the tube. The assistants should be explicitly informed as to what they will be required to do.

The patient should be given a little whisky and placed upon the table in a well lighted place, or, if at night, a good light is very necessary. Tying several burning tallow candles together makes a good light.

Chloroform should be given, cautiously at first, and when the patient is under its influence the neck should be scrubbed and cleaned and a round wine bottle put into a stocking should be placed under the back of the neck. The hands and instruments having been treated antiseptically, the parts should be carefully mapped out.

Of the two operations, superior and inferior, the superior has the preference, as the trachea is nearer the surface and the operation is more easily done. The ring of the cricoid cartilage should be sought for and an incision about three-fourths inch long should be made from this point downwards. Haste will make the operation more difficult.

After making the incision through the skin the dissection should be done with the point or handle of scalpel. When the lobe of the thyroid gland is reached it should be pushed aside. At every step the finger should be used freely as a guide to the position of the parts. I prefer ragged edged to clean cut incisions as hemorrhage will be less likely to occur.

When the dissection has reached the trachea, hemorrhage having been checked, the trachea should be opened from below upwards, which, when done, is indicated by bubbles of air. The wound should be sponged constantly. An aneurism needle may be introduced into tracheal wound and will facilitate introduction of the tube. When the tube is in situ there is immense relief to both patient and surgeon, the little sufferer sinking into a restful slumber for ten to twelve hours, being disturbed only by cough and expectoration. A feather should be introduced into the tube occasionally and trachea to stimulate cough and expectoration. The tube should be secured with tapes around the neck, and iodoform dusted upon the wound.

After Treatment.—The after treatment is probably more important than the

operation itself. The patient needs constant attention day and night, and I know of no condition where skillful nursing is more necessary. The room should be kept at a uniform temperature from 60 to 70 F., and the tube moistened every few minutes with a feather dipped in lime water. It keeps the tube clean and makes expectoration, which is very tenacious, through the tube more easy, besides the lime water, when allowed to trickle down the tube, liquefies the expectoration.

There should be a constant attendant to prevent the muco-pus from being drawn back when once expectorated. By careful assistance to the patient it is remarkable what an amount may be expectorated in this way.

Broncho-pneumonia is the most dangerous complication and is usually denoted by a rise in temperature on the second or third day, but this danger is to a great extent, eliminated by keeping the room at an equable temperature, by promoting free expectoration and by enveloping the chest in a turpentine and camphor on flannel stupe. The lungs should be examined from time to time.

The tube should be removed about the seventh or eighth day, but the character of expectoration will serve as the guide. The false membrane breaks down into a muco-purulent liquid and is expectorated. When the expectoration gets to be less purulent and lighter color the tube can then be safely removed. The patient does not need any medicinal treatment, unless some complication arises, and should be confined to a liquid diet.

After the removal of the tube, the wound should be cleansed and its edges drawn together with strips of adhesive plaster. I find an additional advantage by making two small rolls of cloth, about 1-6 an inch in diameter and placing them on either side of wound and over these the plaster is applied for two or three days. The advantage of this is that the bottom edges of wound are first brought together. The wound should be cleansed, new plasters applied every morning and dusted with iodoform. It heals up usually in from five to seven days.

I have two cases to report, both being successful, and while they may not be of much statistical value, I think by a study of them some practical information can be derived. In both cases the operation of tracheotomy was done as a last resort.

CASE I.—E.M., a well-developed four-year-old girl. Previous health and family history good, but had had more or less inclination to croup. Was called to see the patient with another physician on September 23, at 11 A. M., who informed me that she had been suffering four or five days with croup and had gradually grown worse all the while The paroxysmal element was very slightly marked and she had a rise of temperature from 100° to 101°. Expectoration had been scanty, very tenacious and seemed to contain shreds of a fibrinous nature. No micrscopical examination was made. Inspection of fauces revealed only a state of hyperemia. The voice had advanced from a huskiness to an almost complete aphonia.

When I saw her we realized the gravity of the case and went through our whole list of remedies, but to no effect. I placed calomel grains fifteen upon the child's tongue, but there was no perceptible effect. I left at 12 o'clock, with directions to push the emetics and keep the room filled with vapor of boiling water saturated with turpentine, and to use cold compresses to the throat. I expected to return in four hours, but was delayed, and did not return until six hours. I then found the child sinking rapidly. She had had several paroxysms, in which there was developed duskiness of face and cyanosis.

We informed the parents that the case was hopeless, and explained that a surgical operation was the only thing to be done, which offered a very slight chance for the child, but also told them it would enable the child to die easy. They having consented, we proceeded with the operation as above detailed. The patient now was semi-conscious, pulse 140 and scarcely perceptible, lips and finger nails decidedly purple and breathing less laborious. The details having been arranged and a good light secured, the patient not being conscious of surroundings, was placed upon the table, and I had made an incision through the skin before the child made any resistance, then a few whiffs of chloroform were given. The trachea was reached after some difficulty, owing to the amount of adipose

tissue present, the larynx having been steadied by a uterine tenaculum. Hemorrhage was very slight. The operation was done in about twenty minutes, the tube having been introduced, the breathing now became tranquil. A feather was introduced repeatedly to stimulate cough and expectoration. The patient now was very weak, apparently lifeless and pulse scarcely perceptible. Hypodermic injections of brandy, milk and brandy enema, and warmth by bottles of hot water were resorted to. Patient revived in five hours and was able to swallow a little milk. The feather and limewater were used every few minutes and occasionally were introduced into the trachea. Expectoration was very tenacious, ropy and tough, but was very profuse. The left lung seemed to be markedly involved. as indicated by loud ronchis and suppression of respiratory murmur, but this had disappeared at the end of the second day, owing to the quantity expectorated. Temperature on evening of the first day was 102° F., on the second 101°, and on the third was very slight. Tube was removed on the fifth day, but I was sent for in twelve hours, the difficulty in breathing having again returned. I replaced the tube and allowed it to remain four more days; it was then removed and adhesive plasters applied. Strange to say, the ch ld would never consent for the tube to be removed, knowing the relief it afforded. The wound healed nicely in a week and voice returned to normal in ten days. The patient made a good recovery and has been well ever since.

At this date she has not had any symptoms of croup and a very small scar now remains which is scarcely perceptible.

CASE II—C. D., age 3 years and 2 months; a well developed and stoutly built boy. Previous health excellent and had never had croup. Tonsils were somewhat enlarged; I was called to see him in consultation with Dr. J. H. Malone on January 19. 4 A. M., who informed me that the child had been sick about twelve days with hoarseness and symptoms of a cold, the snow then being ten inches deep. Four days previous to the time I saw him, his symptoms had improved and his voice had become less hoarse, but the next day hoarseness had set in again and the obstructed breathing had steadily increased. There had been some febrile movement.

Breathing now was very labored and the voice was reduced to a whisper.

Inspection of the throat revealed a state of hyperemia and a slightly swollen condition of tonsils, but no fibrinous exudation could be seen.

Emetics had been given and produced free vomiting, but it gave no relief to the difficult breathing. Compresses and poultices and a kettle of water to which lime and turpentine had been added, was kept boiling constantly in the room. Turpeth mineral grains 2 every two hours was given until it produced free emesis and several evacuations. Pellets of ice were given. From these the patient got no relief but steadily grew worse and the difficult breathing became more paroxysmal. At 3 P. M. our remedies had not availed anything, the pulse had become very weak and frequent, and in several paroxysms of dyspnea a convulsion seemed imminent. It was realized that the vital forces were rapidly vanishing and if a convulsion developed, the case would be absolutely hopeless and death would occur before an operation could be performed. We having decided that tracheotomy offered the only chance for the child, laid the matter before the parents for approval, and with their consent we proceeded with the operation.

The patient's neck was very short and thick and had an excessive amount of adipose tissue and parts being mapped out with difficulty. Doctors Malone and Chastain were present, chloroform was administered, and the neck scrubbed and cleaned. An incision about three-quarters of an inch long was made, commencing above at the edge of the cricoid cartilage. The larynx was fixed with a tenaculum and the tissues were dissected away slowly with the point of the scalpel. When the trachea was reached, venous hemorrhage was very profuse and the operation was somewhat delayed, but this was checked by using hot sponges. The trachea was then opened from below upwards and the tube inserted. Having only one silver trachea tube I used the smaller or inner one alone as the outer was too large. Oozing continued, but was finally stopped by sponging. Hav-

ing secured the tube with some tapes, a hypodermic injection of brandy was given, as the patient was weak. Breathing was now easy and the little fellow was put to bed and slept fourteen hours, not having slept any in three or four days. He was disturbed occasionally by cough and expectoration, and in the meanwhile the tube was kept continually moistened with lime water, a few drops being allowed to trickle down into the trachea. The room was kept at a temperature of 60 to 70 F. and the patient given a liquid diet in small quantities. Expectoration was very deficient for the first twenty-four hours and temperature rose to 140° and pulse to 140. The left lung seemed to be affected.

From this period the expectoration began to be more profuse, at first very tenacious and stringy, but towards the end of the third day it became more liquid and muco-purulent. On the second day the temperature was 103°, on the third 102°, and afterwards steadily diminished. It seemed that the intensity of the fever was in inverse proportion to the amount of expectoration.

On eighth day the purulent qualities of the sputa had about disappeared and the tube was removed. The adhesive plasters were applied, as previously indicated, and the wound dusted every day with iodoform.

Expectoration continued several days through the wound, which healed up in a week, and the voice became normal in about twelve days.

My conclusions from personal observations are:

That membranous croup is almost invariably fatal without surgical treatment, and with medicinal treatment but little can be hoped for.

That any hope for an expectant plan of treatment is *nil*, and for the few cases that recover without surgical treatment do not demand a consideration.

That tracheotomy is a justifiable surgical procedure and should be performed in all cases where our therapeutic resources have been exhausted and the patient is in imminent danger of suffocation.

That tracheotomy should be performed in all hopeless cases since it either offers a chance for the patient or it promotes euthanasia.

That, if the operation should happen to be performed when not absolutely necessary, the patient would get well, for it is usually the complications that kill and not the operation.

That statistics are misleading and do not do the operation justice. For if it was done earlier in the disease, after giving medicinal treatment a fair trial, and if we should eliminate the danger of infectious diseases, as diphtheria, from statistics we would have a greater percentage of recoveries. In our smaller towns we can easily exclude the diphtheritic complication where diphtheria is unknown. But in cities that is not the case, however.

That the after treatment is more important than the operation itself.

That tracheotomy keeps the patient alive until the pseudo membrane resolves into a muco-purulent liquid and is expectorated.

That in all human probability the cases I have reported would have died without the operation.

That a lack of instruments is no excuse for the non performance of the operation, for every physician can supply himself with a tube, in addition to his other instruments.

As to the details of the operation I wish to emphasize the following points:

1. That ragged edge is preferable to clean cut incisions. The tissues should be lacerated as much as possible with point of knife so as to prevent hemorrhage.

2. That haste makes the operation more difficult.

3. The importance of keeping the tube constantly moistened with limewater and keeping the room at an equally temperture.

4. That the tube should not be removed until the purulent character of the sputa ceases, which is about the eighth day.

5. The importance of applying adhesive plasters over two small rolls of cloth applied on either side of wound so as to press the bottom edges of the wound together for the first few days, thus preventing any danger of tracheal fistula.

Since preparing this paper I have had occasion to do tracheotomy in another instance for membraneous croup, viz: Was called at noon to see E. H. a delicate and nervous boy seven years old who had been subject to croup all of his life, and had had convulsions. He had had croup for twenty-four hours previous to the time I saw him, but was not sick enough to go to bed. The paroxysms of croup were very severe and lasted about an hour but was partially relieved by the usual remedies. Labored breathing was now considerable, and increased until six oclock when another paroxysm appeared and life seemed to be almost extinct, face dusky and cyanotic, pulse 40, and barely perceptible. Slight reaction was obtained and tracheotomy was decided upon. The patient was sinking rapidly and the operation had to be hurried, with a lack of proper assistants. The tube was introduced with difficulty as the windpipe seemed to be unaturally small. He revived slowly from the operation, but the labored breathing was greatly relieved; however, respiration was not easy and natural, as there was a spasmodic jerk in inspiration, the temperature rose and patient died thirty hours after the operation in a convulsion.

DISCUSSION.

J. R. Rathmel, Chattanooga, emphasized the uncertainty of the diagnosis between diptheria and membraneous croup, and almost certainty of death

W. F. Westmoreland, Atlantic, thought the paper valuable, as it called attention to the value of surgical interference. The surgeon was generally called too late. Tracheotomy, in itself, is not a dangerous operation. He had used cords, fastened in the edges of the wound and tied behind the neck, and thought this practice resulted more favorably than with the use of the tube.

H. B. Wilson, while in the Children's Hospital, N. Y., treated twenty-two cases of diptheria, and all these died except two, in which tracheotomy had been performed; in another epidemic, out of forty cases there were but few deaths.

Frank Trester Smith, Chattanooga, thought the operation of little danger. In the statistics, death is ascribed to the operation instead of the cause for which it was performed; for foreign bodies, the statistics are good. The operation adds but little to the danger of the patient.

H. Berlin, Chattanooga, said that the experiment on dogs in which croup had been artificially produced, showed that the effects of early operation were good. There was little danger from the operation itself.

ON THE TREATMENT OF INFLAMMATORY CONDITIONS OF THE URINARY ORGANS.

By LOUIS LEWIS, M. D., M. R. C. S.

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IN affections of the kidneys, bladder and urinary tract in general, whatever tends to free the urine from epithelium, threads of mucus, pus corpuscles, earthy phosphates, uric acid, etc. and render it more copious and less irritating, should prove a factor in the relief of the congested or inflamed mucous surface over which it has to pass. Three agents have this mysterious property more or less in common, *chloride of ammonium*, *compound spirit of lavender*, *and glycerine;* and a mixture holding these in suitable proportions, is very useful, aided by liberal potations of barley-water. The act of micturition becomes devoid of pain, and the turbid, murky, or purulent urine of ureteritis, cystitis, prostatitis, and urethritis is rendered, smooth, clear and transparent. *Chloride of ammonium* is but little decomposed in the system; some passes by way of the skin and saliva, but most of it reaches the bladder, and appears to clarify the urine, and relieve vesical irritability, and chronic enlargement and inflammation of the prostate. *Compound spirit of lavender* possesses the same remarkable property of transforming muddy highly-charged urine into a clear fluid, no matter what may have been the cause of its cloudiness, whether renal, vesical, or urethral disorder. Just why it should so act, is, in the words of Dick Swiveller, "a most inscrutable and unmitigated staggerer;" but the fact remains. Possibly the red sandalwood in the lavender compound, being a "distant relation" of yellow sandalwood, may possess, as a family characteristic, somewhat of the

latter's influence over muco-purulent discharges. Oil of lavender passes readily into the blood, and most of it escapes by the urine, the balance through the breath and perspiration. *Glycerine* is not broken up in the system, but reaches the urine unchanged, and alleviates dysuria by making the excretion limpid and greasy; it is therefore available in the expulsion of gravel, in simple urethrites; and in gonorrhea. These three agents may be palatably combined in the following proportions: ammonii chloridi ʒij; spirit of lavand. comp. Fʒj; glycerin. Fʒj; aq. dest. ad. Fʒviii. Sig.—two tablespoonfuls three times a day. Apart from actual disease, many nervous and hypochondrical persons are quite disconcerted when they see mucous threads, epithelium, or other manifestations in their urine; a few doses of this mixture will soon restore their equanimity. With respect to the ordinary victims of gonorrhea, (though little deserving of *respect*), the subject of treatment has been too amply aired to call for comment here; but the demoralized Bendict, a not infrequent applicant for aid, is in a desperate hurry, and is usually willing to abide by more irksome directions than the usual run of patients, in order to avoid domestic "imbroglios." In such cases I prescribe a full dose of calomel at once, and enjoin complete repose in bed or on a couch for at least two days In my experience, there are no specific agents in the treatment of this disease that can be favorably compared with cubebs and sandalwood; and the addition of aconite helps to control ferbile disturbance and disposition to epididymitis (which sometimetimes declares itself earlier than usual). My chosen formula runs thus: Ol. santal flav. Fʒij; ol-cubebæ, Fʒiss; tinct. aconiti radicis ad. Fʒss. Sig.—shake well, and take five drops on sugar, every hour. This dose might be dispensed in capsules at bedtime, a mixture of liquor potassæ, bromide of potassium, and tincture of hyoscyamus generally relieves pain and invites sleep. If the latter is disturbed by chordee (which also occurs in the beginning of some cases), a belladonna plasters, applied over the upper lumbar vertebræ, where the reflex centre for erection is situate, will lessen the tendency to priapism and also do much to prevent retention of urine. The above treatment, with the chloride of ammonium mixture about three times a day, will soon fit the patient for the use of injections, which are, after all, indispensable, in the large majority of cases. Their name is legion, including a vast number of astringents and antiseptics; but I have had the best results from bismuth and zinc in the following combination. bismuthi subintrate, ʒvi, zinci sulphat, gr. xij; morphici sulphat. gr. ii; pulv. gum. acaciæ, ʒij; aquæ Fʒvii. A small syringeful every four hours. By this method, I have many times secured speedy success, often in a few days; but the main difficulty is to find patients willing and able to follow the directions, more especially in regard to rigid rest.

Society Proceedings.

ABSTRACT OF THE PROCEEDINGS OF THE THIRD ANNUAL MEETING OF THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

AUGUSTIN H. GOELET, M. D., *President.*

Held in Chicago, September 12, 13 and 14.

DISCUSSION.

(*Continued from last number.*)

"WHAT are the possibilities of electricity in the treatment of fibroid growths?" Those participating in the discussion were asked to do so under certain specific heads.

Dr. Kellogg opened the discussion. He said that the improvement in the general health observed was due to the influence of the electric current on the abdominal sympathetic. The growth could be arrested, and in certain cases near the menopause, retrograde changes could be expected. He had on a former occasion reported a series of fifty cases, in seven of which, the tumor disappeared. Since then, he had not been quite so fortunate. No one would think of employing anything but the constant current except for the relief of pain. He usually employed a coulombmeter in conjunction with the milliamperemeter, thus avoid-

ing troublesome calculations. His personal experience had led him to think that the phlebitis sometimes excited where very powerful currents are employed is a decided help in bringing about retrograde changes in the tumor. He would not employ this treatment in rapidly growing tumors unaccompanied by hemorrhage, in rapidly growing tumors appearing after the menopause, where ovarian cysts accompany the fibroid tumor, where the application is followed by inflammation, and in cases which do not show improvement after a reasonable trial. Recently he had been employing milder currents because they caused less inconvenience, and admitted of more frequent applications. Seventy-five per cent. of his cases had been symptomatically cured; in 55 per cent. the tumor had been very much reduced, and in 14 per cent. it had entirely disappeared.

Dr. Felice La Torre, of Rome, Italy, sent a contribution to the discussion. The galvanic current, in his opinion, certainly arrests hemorrhage, but the diminution in size of the tumor was rare. He discussed a number of theories as to the action of the current, and concluded that it acts chiefly in two ways, viz: (1) by causing energetic contraction of the uterus, and in this way causing compression of its vessel and arrest of hemorrhage; (2) by producing a disturbance in the molecular interchange of the elements of the tumor, by which the nutritive juices are transformed into peptones or other substances which are absorbed or eliminated by the kidneys, thus giving rise to absorption of the fibroma.

Dr. A. Lapthorn Smith had found that this treatment arrests hemorrhage, even in very desperate cases, and the general health is at the same time improved. In about half of his cases there was arrest of growth, and in about half of these, the tumor had diminished in size. In only one case was he sure that the tumor had entirely disappeared. The treatment is contra-indicated when there is reason to believe there is pus in the tubes. He favored the use of mild currents, and the sittings not oftener than twice a week.

He had never given in any one case of this kind more than one hundred applications, and he usually observed marked improvement after about fifteen applications.

Dr. Cleaves said that she had found the treatment of especial value in intra-mural growths, and that in this class of tumors the pressure symptoms are invariably relieved, the general health improved, and in hemorrhagic cases there was an arrest of the hemorrhage. In a limited number of cases there was some anatomical retrogression, but in no instance had she observed a complete disappearance of the tumor. She believed that the arrest of hemorrhage was as largely due to the cataphoric action of the current as to the chemical cauterization. She called attention to the experiment made by Mr. Stewart, of Owen's College Labratory, by which he had demonstrated the increase of liquids at the negative pole and also an accumulation of salts at the negative pole. In order that there should be such an accumulation, it was necessary that first there should be a decomposition and redistribution of the salts, fibroid tumors and inflammatory products, are rich in salts especially in chloride of sodium, and are very largely dependent upon the presence of these for the maintenance of their nutrition and growth. The experiments to which she referred, go to show that the removal of considerable proportion of the salts, even if that removal were temporary would result in the destruction of the tissue, while the removal of a small proportion would effect its nutritive activity. She had also found the induced and static-induced currents of very great value as an adjuvant to the treatment of fibroid growths by means of the constant current. Cases in which the static-induced currents of very great value as an adjuvant to the treatment of fibroid growths by means of the constant current. Cases in which the static-induced had been used, noted a marked sense of well-being, bouyancy, lightness, not only in the pelvis, but in the entire abdominal region.

Dr. Massey said that in a series of eighty cases, in all of the thirty-four hemorrhagic ones, the hemorrhage was controlled; in ten, the growth was simply arrested; in forty-nine, there was distinct retrogression; and in seven, the tumor disappeared. The average current strength was 50 to 130 m. a., and the

duration of the active treatment varied from six weeks to three months.

Dr. Engleman has had much the same experience as the other speakers. He did not doubt that the tumors could be reduced in size provided they were placed under treatment at the proper time ; but he was also compelled to admit that he had seen some very large tumors disappear without any treatment, and this had been the experience of other surgeons We should be very careful not to employ electrical treatment if there is reason to suspect that the tumor had already begun to undergo malignant metamorphosis, for under such circumstances electricity will certainly aggravate the condition.

The President said that one of the principal uses of electricity in some cases of large tumors is to so improve the general health of the patient when it is so much deteriorated as to admit of operative procedures when they are demanded. He had observed considerable retrogression in favorable cases, but had never seen a complete disappearance of the tumor. It was almost always possible to effect a symptomatic cure. He preferred strong currents and short sittings, and did not think much could be accomplished in less than six months. In recent growths, and in myomata, he would expect retrogression. He advocated the use of the positive pole in myomas and where hemmorhage was a symptom, and the negative pole in fibromas. He called special attention to the danger of producing stenosis even with negative applications of only 50 m. a. when the cervical canal is ineluded in the action exerted by the current.

Dr. Hayes thought a useful adjuvant to the ordinary Apostoli treatment consisted in applying the static induced current by means of abdominal and vaginal electrodes.

IMPROVEMENT IN ELECTRO STATICAL INFLUENCE MACHINES.

Paper by Dr. Wm. James Morton. The improvements related to important points in mechanical construction and to utilizing Dr. Morton's discoveries for converting statical discharges into currents. There are two directions in which influence machines are of use to physicians, one the spark and its modifications, the other the Morton currents. The former are familiar to all, the latter exhibit the phenomena of high frequency. High potential currents are familiarized by the labors of Tesla, Elihu Thompson and D'Arsonval.

As a result of continued medical work for thirteen years with statical machines, the writer had had constructed by the Galvano-Faradic Company, of New York City, a machine which embodied in his opinion every modern advance It was fundamentally of the Wimshurst-Holtz type ; it had eight revolving plates, each one thirty inches in diameter ; it was provided with a simple device, by aid of which, the physician could employ at will, the spark, spray, static induced and the transformer current. In its present shape the new machine answered every purpose in the medince to which influence machines could be put. It was known as the Morton-Wimshurst-Holtz Machine.

EVENING SESSION.

Dr. William J. Morton exhibited a new transformer for use with influence machines. The transformer consists of two flat spirals placed in an ebonite box containing oil. The static induced current is led into one coil, and from the secondary coil the current passes to the patient. This current produces a peculiarly vigorous but painless muscular contraction.

Dr. Morton also exhibited a helmet such as was employed by Charcot in the treatment of disease by means of rapid percussion. The vibrations are produced by a small electric motor. The application of this helmet uniformly and almost immediately relieves the sensation of fatigue, and in some cases it will relieve, at least temporarily, most excruciating neuralgic headaches.

Dr. E. H. Woolsey, of California, called attention to the fact that the relief was probably obtained through the agency of the spine, and was similar to the relief experienced by some when riding on horseback or on a railroad.

"Faradization as it was, and as it is with the Controllable and Recordable Current, as provided by a New Apparatus."

Dr. George J. Engleman, of St. Louis,

read a paper with this title. The author described his method of separating the interrupter from the faradic coil so that the current of the latter may be independent of the slow or rapid action of the vibrator. The apparatus is provided with a comparatively slowly revolving wheel by which one can easily compute the number of interruptions. In view of the fact that the full current from the fine wire coil is scarcely bearable when the interruptions are 2000 to 3000, and yet when they are 15,000 the current is scarcely perceptible, the importance of determining the rate of vibration is evident. Personally, he thought the useful limit was 50,000 interruptions. Again, where the external irritation is desirable, a short coil of fine wire is required, whereas an entirely different construction is needed for producing a sedative effect. In addition to noting the number of vibrations of the interrupter, it has been found that the essential points to be recorded are the resistance, the number of windings, and the fineness of the wire.

DISCUSSION.

Dr. Massey remarked that a very objectionable feature of the ordinary faradic apparatus is the rapid oxidation of the contact surfaces of the vibrator.

Dr. Herdman said that this objection had been done away with in the new apparatus, because the rubbing of the contacts on the brake wheel sufficed to keep these surfaces bright. He did not think the physiological limit of such an apparatus had yet been determined.

Dr. Engleman replied that he thought the physiological limit had been reached, for experiment had shown that the best physiological effects were obtained when the number of windings did not exceed thirteen thousand.

The following papers in the absence of the writers were read by title :

"Notes upon some uses of Galvanism in Surgery." By D. B. D. Beaver, M. D., of Reading, Pa.

"An Unconsidered and Important Factor in the Explanation of the Action of Electricity in Uterine Disease." By Henry McClune, M. D., of Cromer, England.

"The Present Position of Electricity in the Treatment of Ectopic Gestation." By A. Brothers, M. D., of New York City.

"Uterine Displacements and their Treatment by Electricity." By G. Betton Massey, of Philadelphia

"Synovitis treated by Cataphoresis." By F. H. Wallace, of Boston, Mass.

"The Primary Action of the Galvanic Current on the Blood." It increases the amount of ozone it contains, as shown by chemical tests of the blood in the arteries." By J. Mount Bleyer, M. D., and M. M. Weil, M. D., of New York.

"The Use of Static Electricity in Incipient insanity." By W. E. Robinson, M. D., of Albany, N. Y.

"The Conservation of Energy as a successful Factor in Electro-Therapy." By Horatio R Bigelow, of Philadelphia, Pa.

Dr. W. J. Herdman, of Ann Arbor, was elected President, and Dr. Margaret Cleaves, of New York, Secretary ; Dr. Franklin H. Martin, of Chicago, and Dr. A. Lapthorn Smith, of Montreal, Vice-Presidents ; Dr. R. J. Nunn, of Savannah, Ga., Treasurer, for the ensuing year. It was decided to hold the next meeting in New York City, on the last Tuesday in September, 1894.

ABSTRACT OF ANNUAL SESSION OF THE TRI-STATE MEDICAL SOCIETY.

Chattanooga, Tenn., October, 1893.

First Day, Tuesday, October 17, 1893, Morning Session. Meeting was called to order by President, Richard Douglas.

Prayer was offered by Rev. John A. Stevens.

A new constitution was read by the Secretary and made a special order for Thursday morning.

A paper by J. W. Russey, of Chattanooga, was read, entitled :

"Treatment of Puerperal Mastitis."

The substance was that compression is of more general utility than any simple measure, both prophylactice and curative, and if abscess forms, pus should be evacuated early and perfectly.

J. A. Goggans, Alexander City, Ala., read a paper entitled :

"Treatment of the Diseases of the Uterine Appendages," and presented specimens of ovaries.

The treatment of this condition was given: 1st, By local treatment. 2d. Amputation of the cervix. The three principal points of diagnosis in disease of the uterine adnexæ are: 1st. Repeated attacks of peritonitis. 2d. Repeated hemorrhages. 3d. Pain. Indications for operation: 1st. Those attending pelvic peritonitis, accompanied by tortuous and distended tubes, which may usually be felt in Douglas' pouch, behind the uterus. 2d. The physical signs of enlarged and tender ovaries due to chronic abscess. 3d. The physical signs of prolapsed and tender ovaries accompanied by irregular hemorrhages and incapacitating pains. 4th. Some few cases of dysmenorrhea as the principal symptom. 5th. Where hemorrhage is the principal symptom, accompanied by the ordinary signs of grave pelvic disease. 6th. In a few cases of general peritonitis preceded by the symptoms of rupture of a pre-existing pelvic abscess, ovarian abscess, pyo-salpinx, or abscess in the appendages developed during the progress of puerperal septicemia. Adjourned.

Afternoon Session. R. M. Harbin, Calhoun, Ga., read a paper entitled:

"Membranous Croup, with Report of Cases Treated by Tracheotomy."

This paper is published in other columns of this number of the TIMES AND REGISTER.

G. A. Baxter read a paper entitled:

"Treatment of the Omentum in Hernia Operation,"

in which he advocated the removal of the redundant omentum and reported a case, in which a very large hernia consisting only of omentum was removed, weighing four pounds. The omentum was shown, also, the patient.

J. R. Rathmell of Chattanooga read a paper entitled:

"Serous and Watery Discharges during Gestation, their Source and Significance."

The author believes that the profession has been mistaken in accepting the theory these discharges were from the amniotic sac. Rupture of the sac is always followed by the expulsion of the fetus. There are two other sources from which these discharges can come: 1st, from the cervix; 2d, from the decidua.

Night Session.—A paper was read by R. M. Cunningham, Birmingham, Ala., entitled:

"Recent Observation of Croupous Pneumonia, with Special Reference to Prophylaxis and Treatment."

This paper was largely statistical, based on an epidemic among the convicts at Pratt Mines.

A paper was read entitled:

"Some of the Diseases of the Female Urethra," by J. C. LeGrand, of Anniston, Ala. The paper related cases in which relief had been experienced from treatment, and others in which no treatment was of any avail.

Adjourned.

Second Day, Wednesday, October 18, Morning Session.—Opened with prayer by Rev. C. G. Jones.

W. Frank Glenn, of Nashville, read a paper on the

"Treatment of Septic Bubo."

He treats the cause of gonorrhea or chancroid, and makes directs applications to the glands. He advocates rest, the application of ice, the injection hypodermically of 1 per cent. solution of benzoate of mercury, and a compress bandage. When suppuration has taken place, free incision, etc. It would be best to excise the gland as quick as it becomes inflamed. After suppuration the case must be treated as a chancroid.

Dr. J. B. Murfree read a paper on the "Diagnosis and Pathology of Fractures near the Elbow Joint," which was a rèsumè of the subject.

T. Hilliard Wood, of Nashville, read a paper on

"Pathology of the Sequelæ of Purulent Inflammation of the Middle Ear."

The doctor spoke of purulent median otitis, as a cause of mastoid periostitis, mastoditis, meningitis, cerebral abscess, phlebitis and pyemia.

G. C. Savage, of Nashville, read a paper entitled:

"Treatment of the Sequelæ of Purulent Inflammation of the Middle Ear,"

in which he advocated measures preventive of the sequelæe of inflammation of the middle ear, outlining his treatment: for the relief of pain, the free and frequent use of a solution of chloroform in olive oil, one dram to seven, allowing the solution to remain in the ear ten minutes at a time; when there is a dis-

charge, the use of a warm solution of peroxide of hydrogen, letting it remain in the ear until bubbling ceases, and repeating this as long as there is any bubbling.

Afternoon Session.—Willis F. Westmoreland, of Atlanta, read a paper on

"Treatment and Prognosis of Fracture about the Elbow."

He flexes the arm at a little more than a right angle, in a position of rest. This is the best position to prevent deformity. In fractures of the olecranon process, it is not best to extend the arm fully. He uses plaster of Paris bandage.

Dr. Richard Douglas delivered the President's address:

Responsibilities of the Abdominal Surgeon.

As President, he advocated that a committee should select two or three members to write on selected subjects for the next annual meeting. He also thought it would be better if the society would change its place of meeting, annually. He emphasized the necessity of thorough training, cleanliness, proper diagnosis, and realization of the responsibility on the part of the abdominal surgeon.

W. E. B. Davis, of Birmingham, Ala., read a paper entitled:

"The Treatment of Stone in the Biliary Ducts,' in which he advocated in those cases where it was difficult to remove the calculi from the common duct without incising the duct, after making the incision if it was very difficult to stitch up the duct, and if the patient's condition would not warrant a long operation, to introduce a glass tube and pack around it with iodoform gauze without attempting to repair the duct.

Paul F. Eve, of Nashville, read a paper on Cholecystotomy, and advocated the removal of the calculi whenever found.

Night Session.—Frank Trester Smith presented a case in which there had been Prolapse of the Iris, which had been partially reduced by pushing it in with instruments and the reduction completed with the use of eserine.

J. W. Handly, of Nashville, read a paper on the "Treatment of Varicocele."

The writer laid stress upon the use of a well-fitting, properly adjusted suspensory as a most excellent palliative measure. In milder cases, besides the above, he advises sound physiological advice as regards sexual habits and constipation.

L. B Graddy, of Nashville, read a paper entitled:

"Etiology, Pathology and Prevention of Ophthalmia Neonatorum."

The etiology, pathology the same as gonorrhœal ophthalmia or gonorrhea of the urethra, being produced by the gonnococci—all of these cases are produced by inoculation. These cases are inoculated during the washing. He recommended that the lids be washed by a 1 per cent. solution of nitrate of silver which should be left on the lid twelve seconds, after which the eyes should be washed with clean water.

B F. Travis read a paper on "Treatment of Ophthalmia Neonatorum."

In the early stage he advises cleansing the eyes with a boracic acid solution and the application of cold water. Later the use of strong solutions (40 to 60 grs. to ounce) of nitrate of silver in the purulent stage.

J. B. S, Holmes, of Rome, Ga., read a paper on Movable Kidney.

Pressure on the kidney always produces nausea and faintness—this is an important point in diagnosis. If much disturbance and kidney cannot be kept in place with a bandage or an abdominal support, the kidney should be extirpated. We should be satisfied that the other kidney is in a healthy condition.

Third Day, October 19, Morning Session.—Prayer by Rev. W. J. Trimble.

On motion, that a committee of five be appointed, to whom should be referred the new constitution for revision and amendment, also the recommendations of the President and said committee, to report to the Secretary, on the morning of the first day, next year, who will have changes proposed published. Carried.

Article IV of the constitution was changed so as to allow the society to meet elsewhere.

A motion was carried that none be allowed to vote or have the privilege of the floor who have not paid their dues for the current year.

On motion, the society reconsidered the vote to have the election at 2 p. m.,

and proceeded with the election of officers. The following were elected by ballot :

President, J. B. S. Holmes, Atlanta, Ga.; Vice-Presidents, James A. Goggins, Alexander City, Ala.; Dan. H. Howell, Atlanta, Ga.; T. Hilliard Wood, Nashville, Tenn. Councillors, W. E. B. Davis, Ala.; G. W. Mills, Ga., J. B. Murfree, Tenn. Secretary, Frank Tresler Smith, Chattanooga, Tenn. Treasurer, W. C. Townes, Chattanooga, Tenn. Recorder, W. L. Gahagan, Chattanooga, Tenn.

The consideration of the new constitution was voted a special order of business for the third day of the next annual meeting, at 9 a. m.

On motion, the society tendered a vote of thanks to the President for the masterly and courteous manner in which he had presided.

Afternoon Session.—The following committee was announced to revise the constitution : W. E. B. Davis, R. M. Cunningham, J. B. Cowan, W. F. Westmoreland, W. G. Bogart,

Y. L. Abernathy, of Hill City, read a paper on the Treatment of Typhoid Fever.

The author claims that it is impossible to diagnose between typhoid and continued malarial fever in many cases. He believes in an aggressive form of treatment, and advocates the use of quinine and mercury in these cases. He also relies on hydrotherapy by the Brand method.

Resolutions of thanks were adopted to the medical fraternity of Chattanooga for their cordiality.

Dr. W. C. Townes read a paper entitled :

"Pathology and Treatment of Goitre." This paper is based on the observation of cases seen during a recent trip through the region of the Alps. For treatment, extirpation of the gland is advocated.

The Secretary was voted a salary of one hundred dollars for the current year.

Night Session.—C. W. Barrier, of Columbus, Ga., read a paper on the Elastic Dressing Applied to Incomplete Anchylosis of the Knee.

H. Berlin related his experience with the Action of the Galvanic Current on the Uterine Tissue.

The paper contained the results of experiments. A current was passed through the uterine tissue which was then subjected to microscopic examination. In one case the experiment was made on the living subject previous to hysterectomy, in the other cases the cadaver was used. He concluded that curetteing would accomplish the result much more quickly.

J B. Cowan, of Tullahoma, Tenn., made an address on Medical Ethics.

He spoke of the violation of the code in consultations. It is the duty of the medical societies to lift up the profession. We get legislation to protect the people and to elevate the profession so that the code could operate on the members of it. He called attention to the splendid organization of the profession in Alabama.

The following were read by title :
Report of Psychical Science, Chicago, August, 1893—John E. Purdon, Cullman, Ala.

The Significance Albumen in the Urine in Pregnancy—E T. Camp, Gadsden, Ala.

On motion, it was decided to hold the next meeting in Atlanta, Tuesday, Wednesday and Thursday, October, 9, 10, 11, 1894. Also that the proposition to change the name to that of the "South-Eastern Medical Society" be considered at that time.

Adjourned.

Note.

Caffeine-Chloral has been recently employed with success in the Augusta Hospital, Berlin, by Prof. Dr. Ewald, who administered it subcutaneously dissolved in water in single doses of 3 to 5 grains up to 6 to 14 grains pro die.

Thirteen cases of constipation were treated ; thin stools passed within three hours of injection of three to six grains caffeine-chloral in eleven cases in which the constipation was of 3 to 6 days' duration. In one instance an ounce of castor oil had been administered the day before without effect and copious irrigation had also been unsuccessful.

The Times and Register.

A Weekly Journal of Medicine and Surgery.

FRANK S. PARSONS, M. D.,
EDITOR.

WILLIAM F. WAUGH, A. M., M. D.,
MANAGER.

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PHILADELPHIA, NOVEMBER 18, 1893.

THE USE OF SALICYLIC ACID IN FOOD AS AN ANTI-BACTERIAL AGENT.

WE have heard, of late, much pro and con regarding the efficiency of salicylic acid as an agent to prevent bacterial fermentation in the stomach.

There seems to be a great deal of difference in opinion as to its value. Many claim the drug to be positively harmful when used continously in, or with, food. Accounts of some researches in support of this may be found in the TIMES AND REGISTER for April 29, 1893. Others have recently claimed that no injury to the digestive organs or the digestive ferments can arise from the judicious use of the pure article, and often it is exceedingly beneficial.

In a recent article in the *N. Y. Medical Journal*, by Dr. Austin Flint, the author states that his father, the late Dr. Austin Flint, had been in the habit of using salicin, in a majority of cases of functional dyspepsia, in doses of ten grains before each meal, with decidedly beneficial results; however, he, (the author) while obtaining good results with salicin, preferred bismuth subgallate.

Probably the difference of the various observations on the use of the salicylates in dyspeptic disorders, the success and non-success of these preparations, lies in the purity of the drug employed.

There can be no doubt as to the value of salicylic acid as a germicide, and we also doubt if in properly regulated doses it can be of any harm to the lining membranes of the stomach or the digestive ferments. That so much material enters the human stomach, the aseptic condition of which may justly be questioned, gives room for the consideration if this be not a fruitful source of most of our germ diseases.

The question naturally arises whether we should not take some means of prevention of such diseases, not only by rendering the physiological functions of the stomach as perfect as possible but also to render its contents aseptic.

We are, more and more, coming to the opinion that in medicine as well as surgery, this subject of combating germ disease will resolve into a question of asepticism in place of antisepticism.

However, as germs *do* invade the stomach, and, subsequently, the blood and tissues, through the ingesta, it may be a practical thing to do to find some suitable antiseptic that can be used as a beverage in place of coffee, tea, or alcohol.

At such a time we may hope to successfully combat tuberculosis as we now do cholera or other infectious diseases.

F. S. P.

Annotations.

ARISTOL IN DIARRHEA AND HEMORRHOIDS.

DR. BROOKE, (*Medical Bulletin*, Feb. 1893), presents a variety of cases of diarrhea in which the internal administration of aristol was followed by very beneficial results. In the treatment of hemorrhoids Dr. Engle (Med. Sum. and Nash. J. Med. and Surg., July, 1893), injected an ounce of cold water every four hours and introduced morning and night a suppository composed as follows: Aristol, 1 oz; ext. opii, gr. III; ext. bellad., gr. I; quin. muriat., gr. xxvi; ol. theobrom et cereae alb q. s.; ft; suppos; no vi. After each movement a small portion of the following was pushed into the rectum by means of the index finger: Aristol, gr. xxx; bals. Peru, 1 oz; ung, zinci Benzoat., 1 oz. Sulphur and cream of tartar may be given during the course of treatment.

A NEW PHYSICAL SIGN FOR THE EARLY DIAGNOSIS OF CROUPOUS PNEUMONIA.

MR. F. H. MORRISON, M. B., C. M., D. P. H., R. C S. I., etc. etc. in the *London Lancet*, Sept. 23, 1893, states he has found the following to be a sign of diagnostic value immediately after the rigor "On careful ausculation, a jerky expiration is heard over the limited area of the chest corresponding to what subsequently developes the position of the usual signs of pneumonia."

It is said to be an unusually well developed early sign in children.

FRENCH TRANSLATIONS.

By E. W. Bing, M.D., Chester, Pa.

EXOPHTHALMIC GOITRE, AND THE MILK DIET.

DR. CHABOUX treated a patient with this disease by an exclusive milk diet; continued for four years. He points out, as worthy of notice, the long tolererance for milk, in this patient and also the considerable amelioration of the condition obtained by this method. The patient, who was emanciated at the beginning of the treatment, increased both in strength, and weight; and the symptoms were so much improved that a speedy cure was looked for. This result would perhaps indicate that exophthalmic goitre is primarily due to an alteration of nutrition.—*La France Medicale.*

EXTRACTS FROM MIABLE'S PHYSIOLOGICAL CHEMISTRY.

THE old physicians resting on the singular ideas which they had formed respecting the causes of disease, and the curative effects of drugs; were the first to associate different substances of the same class. Since they attributed to each of them special properties, and as they were persuaded that these acted invariably, in the body, on such or such a part, they had distinguished purgatives according to their effects. They named "Eccoprotics" those which rendered purely stercoral stools, "Hydrogogues" those which obtained serious stools. Glairy passages were due to "phlegmagogues;" bilious stools to "Cholagogues;" green or black stools to "melanagogues" while general secretions were obtained by "panchymagogues." This last group embraced those purgatives which we call general cathartics, as their action extends over the entire intestinal tube Life is the continual prolonged struggle of the laws of individual nature, against those of universal nature. The degree of life is proportional to the degree of superiority of the first over the second.

MIABLE.

The combination of the potassio-tartrate of iron, with iodide of potassium, is a more advantageous form of administration, than simple iodide of iron, in diseases which requires the simultaneous use of iodine and iron. MIABLE.

Books and Phamphlets Received:

THE PNEUMATIC CABINET IN THE TREATMENT OF PULMONARY PHTHISIS. By C. E. Quimby, A. M., M. D., New York. Reprint from *International Medical Magazine*, January, 1893.

THREE INTRODUCTORY LECTURES ON THE SCIENCE OF THOUGHT By F. Max Muller. Published by the Open Court Publishing Co., Chicago, 1893.

ADDRESS OF THE PRESIDENT AT THE BANQUET IN HONOR OF THE FIRST PAN-AMERICAN MEDICAL CONGRESS. By C. H. Hughes, M. D.. St. Louis, Mo. Reprint from the *Alienist and Neurologist.*

Letters to the Editor.

SIR:—The several interesting articles on rheumatism in your "Special Number" of October 28, throw some new and much old light upon the subject of that ancient enemy of mankind, rheumatism. Barring the suggestion of a specific bacillus described by Schuller as being "2.75 m. long and 0.95 m. wide" and having a bright spot on his head and tail; there seems to be nothing new in the pathology of rheumatism.

The conclusions reached by your contributors on the subject of treatment is much the same as of old, viz: that salicylates and alkalies are mostly to be depended upon. There is, however, one proceeding I wish to speak of in the matter of treatment, especially of the articular form of rheumatism, (whether it be of gonomheal origin or not) wherein synovial-membranes are much affected; that I have used considerably in both hospital and private practice with very satisfactory results, in conjunction with internal treatment. I refer to complete fixation of the affected joint, or joints, by means of plaster dressings, after the same manner of dressing a fracture.

The limb is placed in an easy position and covered with a thick layer of cotton batting over which is applied the plaster dressing. If it be the knee joint the "fixed dressing" should extend from the toes up to the middle third of the thigh.

The perfect rest at once thus obtained, together with the uniform warmth of the member, usually relieves all acute pain in the joint and thus greatly facilitates recovery. Let those who recommend hot fomentations and stimulating linaments applied to painful, swollen, rheumatic joints, adopt the plaster dressing instead, (of course keeping up internal treatment) and I assure them they and their patients will be pleased with the result.

R. B. GILBERT, M. D.

Louisville, Ky.

[The idea of absolute rest by fixation of the joint is not a new one, and the treatment is good. The straight splint is easier applied, cleaner and as effective. The only difficulty seems to be in the fact that rheumatic inflammations will, when acute, leave one joint in a day or two and seek another joint. This would keep one plastering most of the time so that splints are easier changed.—ED. T. & R.]

As the TIMES and REGISTER has published several accounts of tape-worm, please allow me to relate my experience with one.

Mr. Taenia occupied a snug position in the Department of the Interior, where he collected a high tariff on all that passed his way (for his own benefit, of course). As the position was a sinecure, I endevored to persuade him to resign, using such strong arguments as turpentine, malefern, and a certain proprietary remedy, but without effect, except that the last brought away several yards, without the head.

I finally tried *oleum chenopodii*, (which the books only mention as being good for *ordinary* worms) I gave three doses of 25 minims each, at half hour intervals just before bedtime followed by a purgative in the morning. Mr. Taenia immediately began to settle up his affairs, realizing that a change of administration had taken place, and about noon, sent in his resignation. He soon appeared in one piece 15 feet long, but had forgotten in his haste to bring his head with him. This was fowarded by the next express about an hour later, together with an inch of neck and a few belated sections.

Mr. Taenia, since his retirement from office, has been drowning his disappointment in a bottle of alcohol.

DR. J. L. HOLMES,

Moundsville, W. Va.

YOUR answer to Dr. Evan's query in your issue of the 4th inst., is not correct, for the 11th section of the Pharmacy Act of 1887 was repealed by the last legislature. The 11th section of the Pharmacy Act said, "Physicians who have practised three years may be registered." The Board of Pharmacy, however, never considered it manditory and registered only a choice few.

There is now only one way to become a "registered pharmacist," in Pennsylvania, viz., pass the Pharmacy Board.

F. U. FERGUSON.

GALLITZIN, PA,

Bureau of Information.

Questions on all subjects relating to medicine will be received, assigned to the member of our staff best capable of advising in each case, and answered by mail.

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1725 ARCH STREET, - Philadelphia, Pa.

SEQUEL OF LA GRIPPE.

WILL you kindly outline a course of treatment for the following described case: Woman, aged 30 years, married, mother of one child which died in March 1892, aged 4 years. She had *la grippe* in January 1892. From this, and the loss of her little boy she dates her trouble, which begun soon after, with chills, coming on mostly at night. Fever followed, 99° to 100°, then sweating, these chills occuring a little later each night, and increasing in severity, until they came on as late as two or three o'clock A. M. They would then drop back to the evening, and recur at later hours each night, going through this series every week or two. At this same time she was attacked with motor and sensory paralysis, from which she kept her bed for several weeks. The bowels are, and always have been, very constipated. She gradually improved some, gaining flesh but no strength. She has had no chills for eight months. and has mostly recovered from the paralysis. When a child, she was unable to walk until eighteen months old, because of a spinal weakness. She is still an invalid, unable to more than sit in a chair, or walk across the room. The least overexertion brings on "a drawing sensation and nervous hurting," in the muscles of her back, in the lower dorsal region. There is no spinal tenderness but the spine is curved backward almost to a "hump." The lungs are good; heart sounds normal, but its actions very weak; no kidney trouble but occasional attacks of "gravel." Her husband, father and brother are all able physicians and have treated her, as have others also.

Please aid us and oblige

AN OLD READER.

[This is not an easy case to define. The nervous sequels of *la grippe* are varied and indeterminate; and there may have been a malarial complication, myelitis undoubtedly. The treatment should be by arsenic steadily, brucine gradually increased to tolerance, quinine if there be evidences of malaria, iron if anemia demands it. Massage, general faradisation, good food, salt baths and change of air as general remedies; with cod-liver oil if emaciated, comprise the medication.—W. F. W.]

TUBERCULAR PHTHISIS, WITH TWO PECULIAR SYMPTOMS.

MY wife, who has had severe bronchitis for many years, was delivered naturally of child (her first), four weeks ago. Six hours later, dysentery set in, which had some typhoid symptoms. This passed off in a week, leaving her in a low nervous condition temperature 100° A. M. and 102½°, P. M., with slight variations from these figures, pulse, 112°, A. M., 125°, P. M., loss of appetite, slight nausea, insomnia very great, nervous mania at times, coughing and expectorating profusely, slight sweating after midnight. She is reduced to a mere skeleton; has no coating on the tongue, but numerous small ulcers. Thirst is not severe now, but was two weeks ago. The urine contains no albumen since the confinement, but had small quantity for two week previous. Opium makes her comfortable and relieves the nervousness for the time.

Her mother's people live to old age. Her father died early with consumption.

Now, Doctor, there are two very distressing symptoms; please help me relieve these, along with other treatment you can suggest. (1) Dryness of the mouth, with continual hawking of sticky mucus which keeps the mouth covered and complete absence of saliva. (2) Extreme muscular soreness all over the body, even to the toes.

Would nervous prostration cause the fever and soreness with wasting?

J. B.

[Tuberculosis of the lungs; and of the mouth, probably. Let her take a few drops of glycozone

every half hour or so, and also rinse the mouth, at short intervals with solution of chlorinated soda, a drachm to four ounces of water. For the muscular soreness, innunctions of hot lard, cod-liver oil or lanoline, once or twice daily. The history points unfortunately too plainly to consumption.

—W. F. W.]

CLAVUS, PERIODIC DIARRHEA, FURNUCULOSIS.

I BEG of your information on the following:

A lady, forty two years old, married, hysterical from girlhood, with a very delicate digestive apparatus, has terrible spells of clavus.

I want treatment for the *clavus*. You say brucine. How shall I use it?

Case 2. A man, forty-three years old, has had periodical diarrheas all his life. He is worse in hot weather. About every one, two or three weeks, his bowels will break loose, and everything in him has to run out.

There are little premonitory symptoms. While the contents of the bowels are runing off there is griping, and he will take a teaspoonful of laudanum, with spt. camphor and whisky. He is very careful about his diet, especially as to vegetables. He lives on bread, meat, and milk.

Is there anything I can do for this poor man? He is an invalid and a great friend of mine.

Case 3. A healthy looking man, forty years old, every time he scratches his hands he will have a large pustule at the site of the scratch. He has been troubled with furunculosis.

One year ago he got his leg cut, and poison in the cut, and has boils ever since. I long to see your new book, I have an "outline," and admire THE TIMES AND REGISTER. CALVIN ATKINS.

SMITHVILLE, MO.

[*Clavus:* Give brucine in the intervals, gr. 1-36 to 1-12, thrice daily; and relieve the paroxysms by the use of antikamnia, phenacetine or antinervine. gr. v, every two hours.

Periodic diarrhea: Diet, exclusively of milk, lean beef and raw white of eggs. Give arseniate of sodium, gr. 1-134, four times a day. Order a flannel abdominal bandage.

Furunculosis: Have the man bathe himself and clothes in chloride of lime solution. Give internally, tincture of chloride of iron, gtt. xxx, and magnesia sulphate, gr. xxx, before meals, and arsenic sulphide, gr. 1-67 after meals. W. F. W.]

The Medical Digest.

THERAPEUTICS.

The Influence of Remedies etc., upon Gastric Digestion.—F. Penzoldt, M. D., of the University of Erlangen, in a paper read at Nuremburg Sept. 14, 1893 to the Pharmacological Section of the congeners of the German Naturalists' and Physicians' Society states, that he has investigated the question as to what effect were exercised upon the digestive activity of the stomach by some of the spices, liquors, antipyretics, etc., commonly used.

A series of very interesting facts has been elicited. Alcohol slacks considerably the process of digestion if administered in doses larger or more concentrated than those contained in the quanities of beer or wine, generally taken with the meals.

Mustard acts as a stimulant to digestion but salicylic acid proves not to possess *the slightest influence whatever* on the digestion of the food, even when this well known preservative has been conveyed to the stomach with the food continually and for a very long time.

Diabetin—An innocuous and palatable sugar for diabetics. *Diabetin* is a white granular mass which is soluble in water in almost every proportion; it has a pure sweet taste, similar to that of sweet fruit. Its power of sweetening is considerably greater than that of cane-sugar, pure *diabetin* is, therefore, the most appropriate means of sweetening all the various kinds of food and drinks for diabetics, especially fruit juices, preserves and lemonades.

Thus *diabetin* is a chemically pure substance which has a remarkably sweet taste and possesses the same nutrient value as cane or beet sugar, with this great difference: that it can be assimulated and for the greater part made use of by the system of diabetic patients,

It will be most advantageous for diabetic patients to take *diabetin* under the guidance of a competent physician, since the great majority of them, though not all, are able to assimulate considerable quanities of this preparation.

[The above is supplied in one pound, screw top glass jars by Schering & Glatz, 55 Maiden Lane N. Y., City.—Ed. T and R.]

An Accidental Death from Ammonia—At New Brunswick, New Jersey, an unusual cause of death has been announced as the result of the careless administration of aqua ammoniæ to a person in a fainting condition. A bottle containing several ounces of the drug was held to the patient's nose in such a way that the liquid was spilled. Some of it found its way into the throat and air passages. The throat and lungs were profoundly irritated by the ammonia, and the woman died in great pain. She had only recently recovered from an attack of pneumonia.—*N. Y. Med. Jour.*

Therapeutic Effects of Direct Electrization of the Stomach.—Max Einhorn (*Deut Med. Woch.*, 1893, Nos. 34 and 35) concludes a study of this subject. (1) Direct faradization. Here details of some 28 cases are given, including hyperacidity with dilatation, gastroxynsis, chronic gastric catarrh, anadenia, obstinate gastralgia, etc. The chemistry of digestion was always investigated. In all cases, with a singular exception, there was a diminution or rather disappearance, of the symptoms under this treatment, but in five other cases of obstinate gastralgia the improvement was so small that galvanism was tried. The faradic current used was only strong enough to produce contraction of the abdominal muscles, and the sitting lasted ten minutes. 2. Direct galvanization. Here seven cases are recorded. The cases of obstinate gastralgia referred to above were much benefited. The author concludes that direct gastro-faradization is useful in most chronic diseases of the stomach, except cancer; that its effect is very evident and comparatively rapid in non-obstructive gastric dilatation, and also in cases of relaxation of the cardia or pylorus, and that direct galvanization gives good results in obstinate gastralgia rebellious to other treatment.

The Utility of Electricity in the Treatment of Hemiplegia.—Renzi (*Revista clinica e terapeutica*, 1893, No. 1, p. 1; *Gaz. hebd. de Méd. et de Chir*, 1893, No. 29, p. 345) contends that electro-therapy is sometimes immediately followed by a restoration of the power of voluntary contraction in the paralyzed muscles. This restoration is not dependent directly upon the electricity, but upon the contractions induced, the memory of the defective motor mechanism being thus revived.

MEDICINE.

Slow Pulse.—The causes which produce slow pulse may be classified as follows:

1. Diseases or injuries to the nerve centres, producing either irritation of the pneumogastric or paralysis of the sympathic (accelerator) nerves of the heart.
2. Diseases or injury of the pneumogastric nerve, increasing its irritability.
3. Disease or injury of the sympathetic nerves of the heart, paralyzing them.
4. Disease of the cardiac ganglia, by which the influence of the pneumogastric nerve preponderates.
5. Disease of the heart muscle (degeneration), whereby it fails to respond to the normal stimulus.
6. The action of poisons, as lead or tobacco, either on nerve endings or centres. The poison generated in salt fish. Also the poison of certain febrile diseases, algid pernicious fever. Another possibility is malaria poisoning.—D W. Prentiss, M. D., in *St. Louis Med. and Surg. Journal.*

For Enlarged Spleen.—Professor Wm. H. Pancoast applies a plaster composed of belladonna, mercury and a little cantharides, over the spleenic region.

SURGERY.

Surgical Treatment of Aneurisms of the Brachio-cephalic Trunk and of the Aortic Arch According to the Method of Brasdor and Wardrop.—Le Dentor in *Rev. de Therap. Med. Chir.*, March 1, 1893, report two cases as follows:

Aneurisms of the brachio-cephalic trunk. We should begin with the ligature (at a single sitting) of the primitive carotid and the right subclavian.

If the tumor continues to develop in the direction of the supraclavicular and suprasternal cavities, we can sometimes attempt the ligature of the vertebræ of the same side.

If the tumor, checked in its development to the right, tends to develop toward the left supraclavicular cavity, the left subclavian should be ligated. We should not ligate the left carotid for some weeks after the operation on the right side.

Primitive, or secondary aneurisms of the aorta. If they are in the ascending part of the arch, the ligature of the two branches of the brachio-cephalic trunk is indicated. If the horizontal portion of the arch is affected,—with or without the b achio-cephalic trunk,—it may be of advantage to ligate (at one sitting) one of the vessels of the left side at the same time as one of the branches of the brachio-cephalic trunk provided that the two carotids are not ligated on the same day.

If the portion of the arch situated "below" the origin of the subclavian is affected primarily, all ligature is contra-indicated, since the tension of the blood in the sac would not be increased.

Should this portion of the arch be distended, together with the two first portions of the brachio-cephalic trunk, the ligatures may still serve to arrest, for the moment, the advance of the affection, and to give relief to the patients.

Medical treatment should be tried before performing an operation.

The Value of the Hands and of the Fingers.—Surgeons have often to estimate the chances of saving injured hands, and the comparative values of hands and fingers. According to a scale of value furnished by the Miners' Union and Miners' Accident Insurance Companies of Germany, the loss of both hands is valued at 100 per cent., or the whole ability to earn a living. Losing the right hand depreciates the value of an individual as a worker 70 or 80 per cent., while the loss of the left hand represents from 60 to 70 per cent. of the earnings of both hands. The thumb is reckoned to be worth from 20 to 30 per cent. of the earnings. The first finger of the right hand is valued at from 14 to 18 per cent., that of the left hand at from 8 to 13 5 per cent. The middle finger is worth from 10 to 16 per cent. The third finger stands least of all in value; although like other useless members of the community, it is surrounded by riches, its value is only from 7 to 9 per cent. The little finger is worth from 9 to 12 per cent. The difference in the percentages is occasioned by the difference in the trade, the first finger being, for instance, more valuable to a writer than to a digger.—*Med. News.*

CHILDREN'S DISEASES.

Vulvo-vaginitis in Children.—Rocaz (*Annales de la Policlinique de Bordeaux*, September, 1893,) observes that vaginal discharges in little girls must never be neglected. They often cause purulent ophthalmia from infection through the patient's finger, and otitis through constitutional sepsis. External treatment is useless. Thorough vaginal douching is necessary. Sublimate is unsatisfactory, causing local irritation. Permanganate of potassium is excellent. A 1 in 4,000 solution of the salt is employed by Rocaz at the beginning, and increased to 4 in 1,000. The child is placed on the edge of the bed, a soft rubber male catheter is introduced through the hymen and connected with the irrigation can placed a yard above the patient's body. About a pint of the solution is used. The douching should be carried out three times weekly. After the first douching there is often a slight increase of the discharge, but cure is certain within a month. Tonics must always be given. Purulent otitis, as a complication, readily yields to syringing with the same solution.—*British Medical Journal.*

The Treatment of Tuberculosis in Children.—Dr. Clemente Ferreira finds that creasote administered by the mouth is generally remarkably well borne, whether in pill form or as drops in milk, by very young infants. The daily dose is increased to the limit of seven grains without giving rise to any digestive or urinary disturbances; on the contrary, the appetite improves and the nutrition is bettered, the weight gradually increasing. The local signs gradually diminish, and after four to six months are difficult to detect. Used hypodermatically in sterilized olive oil, sometimes with iodoform, creasote produces excellent results, but more slowly than when given by the mouth. In addition, the possibility of local accidents, and the interfer-

ence of the mothers, who regard the injections as painful, are reasons which limit this method to exceptional cases. Guaiacol can be administered by way of the mouth in astonishingly large doses. After a time the daily dose of sixty grains can be attained, and that without gastro-intestinal disturbance. In general the results are equally good as with creasote, the large doses being better borne. Hypodermatic injections do not present the advantages which compensate for the inconveniences of the same. Aristol administered hypodermatically to seven grains per day has not given either general or local improvement, nor by the mouth have the results been so marvelous as those obtained by Nadaud in adults. Iodoform is frequently of great usefulness, but it must be continued for a long time and frequently develops an intolerance which necessitates its interruption. The cantharidate of potash, used in doses of $\frac{1}{250}$ of a grain, hypodermatically, and repeated every six days, has been well borne, the kidneys not showing any disturbance. The local signs have improved, and in one of the two cases the general condition was benefited. The method of Lannelongue (injections of chloride of zinz) was used in two instances. In the one the local manifestations (tuberculosis of submaxillary glands) underwent a remarkable diminution; in the other (tuberculosis of the hip) an abscess resulted, which was aspirated, and improvement resulted from the administration of creasote in increasing doses. *Bulletin Général d. Thérapeutique*, 1893, 28. livr., p. 68.

OBSTETRICS AND GYNECOLOGY.

Coffee, it is reported, will suppress lacteal secretion. If an overflow of the milk or where the milk is required to be checked in its secretion, coffee may be drank. Mothers having scarcity of milk should avoid it.—*Toledo Medical and Surgery Reporter.*

The Treatment of Vulvar Vegetations by Pure Carbolic Acid.—Derville, of Lille, treated a case of vulvar vegetations covering both the anus and the vulva, and reaching the size of a man's fist. He cured this enormous growth by local washing with pure carbolic acid. The whole surface of the vegetations was painted with the pure acid; the application was repeated about the fourth or eighth day. The treatment occasioned no pain, but frequently caused erythema, vesiculation, and excoriation of the surrounding parts. This is prevented by the application of vaseline to the healthy skin.—*Charlotte Medical Journal.*

Treatment of Metritis.—Dr. Cheron, the eminent gynecologist, treats as follows parenchymatous metritis:—

As nourishment, two quarts of milk daily in small repeated quantities. To ease the pain, which is often very severe, and to reduce the fever, phenacetine, five grains every six hours, and antiseptic fomentations on the abdomen in the following manner: A large layer of cotton is plunged into hot water and wrung out, and sprinkled with from forty to fifty drops of laudanum and placed on the abdomen; a covering of oil silk is necessary to keep up the temperature. This application is renewed night and day. The lumbar region is rubbed with ointment as under:

℞ Salicylic acid . . . . . ʒj;
Lanoline . . . . . ʒj;
Essence of peppermint . . . ♏ iv.;
Lard . . . . . ʒiss.

As soon as the state of the patient can bear it, a hip-bath of warm starch water is given twice a day, and twice a day also a vaginal injection of a 3 per cent. solution of boric acid. Subsequently vaginal antiseptic suppositories are introduced to complete the cure.—*Medical Press.*

Diagnosis of Ovarian and Parovarian Cysts.—Tilleaux, of Paris, says that the ovarian cyst at first is always unilocular, and from the wall of the primary cyst appears a secondary, which projects into its cavity, sometimes externally. In this way a number of secondary cysts may develop, leaving the tumor later to present the appearance of an absolutely vegetating mass. An unilocular cyst is everywhere smooth, presenting a uniform absolutely regular surface. Fluctuation is universal. If, upon palpation, you can observe irregularities of surface or differences of consistency it is safe to conclude that it is a multilocular cyst,

and in their absence that it is unilocular. We cannot be too positive in this, as a secondary cyst may escape the most minute examination. In cyst of the ovary and the parovarian cyst, the former is always pediculated. The pedicle is constituted either by the ovary itself or the ligament of the ovary. As the tumor increases in size it comes in contact with the abdominal wall, and upon incision we perceive its white, shining pearly surface. The broad ligament is practically a closed sac above, open below, and continuous with the peritoneum that covers the pelvic floor, and also with the parietal peritoneum. A tumor developing between two leaves of the broad ligament, as it developes, unfolds these leaves, forcing them back more or less, and always remains an encapsulated tumor. In incising the abdomen in such a case, we do not see the pearly, glistening appearance, but only the surface of the broad ligament. The parovarian cyst is generally sessile. Exceptionally it can be pediculated, when the pedicle is constituted at the expense of the over-distended serous folds. The parovarian cyst is always unilocular and somewhat flabby, presents a sensation which recalls the quivering of the hydatid. They are generally smaller than the ovarian tumors.—*Annales de Gynécologie et d' Obstétrique*, March, 1893.

Notes.

BORN ON THE CARS.—An accouchment, somewhat out of the usual routine, occurred in a state-room on a palace car on September 22d last, on the day express south on the A. V. Ry. The mother was a lady from Buffalo on her way to visit her parents in Allegheny City. The professional services of Dr. Robert Robinson, of East Brady, were brought into requisition by a telegram sent ahead of the train. He boarded the car at East Brady and between that point and Redbank station the birth took place. The doctor accompanied his patient to Pittsburg in safety, and mother and daughter were doing as well as could be expected under the circumstances. — *Armstrong Democrat.*

A DELICATE OPERATION.—The well-known Paris doctor, M. Dujardin-Beaumetz, member of the Académie de Medeciné, has just undergone at Beaulieu the delicate intestinal operation known as cholecystenterostomy. The operation was quite successful.

PRECAUTIONS AGAINST POISONING.—A law in Germany requires that all drugs intended for internal use be henceforth put up in round bottles, and those for external use be placed in hexagonal bottles. This enactment is precautionary against poisoning —*Boston Med. and Surg. Jour.*

EMERGENCY CASES OF ILLNESS AND THE MEDICAL PROFESSION.—The public are gradually learning that medical men are not bound to attend at everybody's beck and call—in other words, that they have to be paid for like other classes. Lately a jury at Poplar, on the suggestion of the coroner, added the following rider to their verdict of "Death from natural causes" in a case where a medical man declined to attend without being first paid, and where the patient died before a second one could be procured: —i. e., "that the coroner write to the guardians and urge upon them the desirability of their obtaining the power to pay a doctor out of the poor-rate when called to urgent cases of sickness." We have long urged that some such provision should be made for emergencies of this kind. The time has passed for the public to throw on a poor and overworked profession the weight of all its cheap benevolence. When it has done its own part the profession will not be an ungenerous party to seeing that no sick persons are unrelieved.—*London Lancet.*

THE READING DOCTOR.—The best informed and most successful physicians are those who read the greatest number of medical journals, for, in this way, a comparatively small amount of reading suffices to keep them conversant with current medical news and at a trifling cost.

NITRATE OF SILVER STAINS are easily removed by painting the part with tincture of iodine and then washing in dilute aqua-ammonia.—*Pacific Med. Journal.*

THE MEDICAL RAVEN.

Once upon a midnight dreary,
The doctor slumbered weak and weary,
And all the town could
Hear him snore.

While he lay there sweetly napping,
Suddenly there came a tapping
Like a ramgoat madly rapping
His hard head
Upon the door.

"Get thee up," a voice said loudly,
"Come in haste," it added proudly,
Like a man who owned a million
Or much more.

But the doctor never heeded,
Back to dreamland fast he speeded,
For such men as that he needed
In his practice
Nevermore.

For long months that man had owed him,
Not a cent he'd ever paid him,
And the doctor now will dose him
Nevermore.

—Atlanta Med. and Surg. Journal.

SETTLE YOUR BILLS.

A Kansas physician has the following printed at the foot of his bill-head: "A prompt settlement of this bill is requested. If bills are paid monthly a discount of ten per cent is given. Bills not paid promptly will be passed to my attorney for collection. If you pay your physician promptly he will attend you promptly, night or day, rain or shine, while your slow neighbor waits, as he makes the doctor wait, and while he is waiting the angels gather him in."—*Cincinnati Lancet-Clinic.*

NOTICE.

In response to the many requests from those who failed to see our stupendous offer in October in time, we have concluded to reopen it until January 1st, 1894. Whoever will send us one dollar can have the TIMES AND REGISTER sent to their address (U. S. or Canada) weekly until January 1st, 1895.

Prescriptions

ANTISEPTIC COMPOUND.
(DR. DE CHRISTMAS)

A combination of various antiseptics whose power is almost equal to that of bichloride of mercury, without its dangerous inconveniences.

Carbolic acid	9 grammes
Salicylic "	1 "
Lactic "	2 "
Menthol	0.2 centigrammes

This mixture, named by the author phenosalyl, is scarcely toxic since only very weak solutions 5 to 7½ per 1000 need to be used. In the proportion of 20 to 1000—it completely sterilized tuberculous sputa after 15 minutes' contact. The mixture is prepared by heating the three acids to liquefaction and then adding the menthol. It is very soluble in glycerine and dissolves easily in water up to four parts in the 100.

—Le Progres Medical.

BROMOFORM FOR PERTUSSIS.

Bromoform may be used in the dose of 10 to 30 centigrams for children and 1 to 1½ grams for adults.

Stepp advises the following:

Bromoform	10 drops
Alcohol	3 to 5 grammes
Water	100 "
Syrup	10 "

One to two teaspoonfuls (?) every hour.

—Le Progres Medical.

CANKER SORES ON LIPS, MOUTH, TONGUE OR THROAT.

℞ Suphate of zinc . . . . . 40 grs.
Rose water, or pure water . . 1 oz.

Apply every other day to the spots with a camel's hair brush or a piece of cotton. Canker sores can be touched to advantage every day or two with burnt alum or a piece of sulphate of copper.

—Pharm. Era.

FOR PRURITUS ANUS.

℞ Camphor 2
White wax 3
Lard 4
Oil of almonds . . . . . 3 parts

M. S.—Apply locally.

—Squire.